

ABSTRACT

It is an object to provide an image generating system and program which can generate such an image as in the real world with reduced processing load. The alpha-value for each pixel in the original image is set to a value corresponding to its Z-value. The set alpha-value is used to perform alpha-blending between the original image and a defocused image. As the difference between the Z-value of the focus and the depth value increases, the synthesis ratio of the defocused image is increased. The range of depth of field and defocusing effect are controlled by varying the corresponding relationship between the Z-value and the alpha-value. The alpha-value is set such that the alpha-value for an pixel located in an area AR1 between Z1 and Z2 will be set to α_1 , the alpha-value for an pixel located in an area AR2 between Z2 and Z3 will be set to α_2 and so forth. The alpha-value is set by updating the alpha-value of a pixel located farther from an object when the object is drawn in a frame buffer. When the original image is set as a texture which is in turn mapped through the bi-linear filtering method, the defocused image is generated by shifting the texture coordinates by a value smaller than one texel.